

WHAT IS CLAIMED IS:

Sub A67 1 1. A hoodless female contact for engaging a male pin comprising:

5 a socket body having two ends with at least one axial hole defining an open free male contact receiving end and an open wire-receiving end for connection with an electrical conductor; and

10 a spring located in the hole defining the male contact receiving end, including a forward portion and rear portion, the forward portion having a plurality of forwardly and inwardly extending fingers which  
15 terminate near the free male contact receiving end for resiliently grasping the male pin in close proximity to the free end.

1 2. The contact defined in claim 1 wherein the fingers grasp the male pin about .025 to .045 inches from the free end of the socket body.

1           3. The contact defined in claim 2 wherein  
the fingers flare out at the ends thereof for  
facilitating insertion of the male pin in between  
the fingers.

1           4. The contact defined in claim 1 wherein  
each of the fingers has an inwardly disposed  
dimple which engage the male pin.

1           5. The contact defined in claim 4 wherein  
the dimples are disposed along the extent of the  
fingers at different axial distances from the free  
end of the socket body.

1           6. The contact defined in claim 1 where  
said at least one hole comprises a first and  
second axial holes, the first axial hole defining  
the open free end for receiving a male contact an  
5 the second axial hole defining the open end for  
receiving the electrical conductor and further  
comprising an electrical conductor inserted into  
the second axial hole of the socket body and means  
for attaching the socket body to the electrical  
10 conductor.

Sub A-77

1        7. The contact defined in claim 1 wherein  
the socket body is crimped onto the rear portion  
of the spring contact.

1        8. The contact defined in claim 1 wherein  
the free end of the socket body is rolled over to  
extend radially inwardly beyond the forward end of  
the spring to prevent removal of the spring from  
5 the hole and to center a mating pin contact.

1        9. A female contact comprising:

a tubularly shaped body member  
defining a first axially disposed blind  
bore with a free end for receiving a  
5 male contact and a second axially  
disposed blind bore sized and shaped to  
receive an electrical conductor; and

a male contact engaging spring  
seated entirely in the first bore, the  
10 spring having front and rear portions,  
the front portion of the spring having a  
female coupling portion adjacent to the  
free end and the rear portion of the  
spring and the socket body having  
15 cooperative securing means for securely

holding the spring in fixed position within the body member.

10. The contact defined in claim 9 wherein the cooperative securing means comprises a selected portion of the tubularly shaped wall being roll formed into the rear portion of the spring.

10. ~~11~~. The contact defined in claim ~~8~~ wherein the first blind bore has an inwardly projecting shoulder, the rear portion of the spring seating against the shoulder to inhibit rearward movement of the spring within the <sup>first blind</sup> bore of the body.

12. The contact defined in claim 9 further comprising a male pin adapted to be inserted into the front female coupling portion of the spring, the female coupling portion having a plurality of forwardly projecting fingers which are arranged to engage the male pin inserted therebetween in close proximity to the free end of the socket body.

20 [ pin being inserted into the open free  
end and grasped by the female coupling  
portion.

1 <sup>14</sup>~~15~~. The male/female contact system defined  
in claim <sup>13</sup>~~14~~ wherein the tight fit between the  
socket and spring member~~1~~ is established by burrs  
on one of the members which dig into the other  
member.

1 <sup>15</sup>~~16~~. The contact defined in claim <sup>13</sup>~~14~~ wherein  
the spring member has an indentation and the  
tubular socket member has a cooperative  
indentation seated therewith for securely holding  
the two members together.

Sub A-97 1 [ 17. The contact defined in claim 14 wherein  
the female coupling portion grasps the male  
contact within about .025 to .045 inches of the  
first end.

1 18. A method for making a female socket  
contact comprising the steps of:

providing a tubular spring member  
having a rear end and a female coupling  
portion at a forward end;

1           13. The contact defined in claim 12 wherein  
the fingers engage the male pin within about .025  
to 0.45 inches from the free end of the tubularly  
shaped member

1           14. A male/female contact system for  
coupling a male pin contact to a female socket  
contact, comprising:

5           a tubular socket member having a  
first hole therein with an open free  
end for receiving the male pin contact  
and a second hole therein sized and  
shaped for receiving an electrical  
conductor;

10           a pin contact; and

          a tubular spring member seated in  
the first hole of the tubular socket  
member establishing a tight fit therein  
to prevent movement of the spring  
15           member relative to the tubular socket  
member, the spring member having a  
forwardly extending female coupling  
portion terminating adjacent the open  
free end of the first hole, the male

providing a socket body with bore having a wall, a free open end for receiving the spring member and a conductor receiving end;

10            inserting the spring member entirely within the socket body with the female coupling portion adjacent to the free end;

15            crimping the socket body wall onto the spring member to push a portion of the socket body wall into the spring member to hold the two together;

20            providing an electrical conductor; inserting the electrical conductor in the socket body at the conductor receiving end; and

             crimping the socket body wall onto the conductor.

1            19. The method of claim 18 further comprising the step of:

             providing a male contact; and

5 inserting the male contact into  
the spring contact female coupling  
portion establishing an electrical  
coupling therebetween.

1 20. The method of claim 19 wherein the spring  
member is formed with a female coupling portion in  
the form of a plurality of resilient fingers which  
are spread apart upon the insertion of the male  
5 contact.

1 21. The method of claim 20 wherein the  
plurality of resilient fingers of the spring  
member have a proximal end positioned adjacent the  
open spring receiving end of the socket body bore  
5 and further including the step of rolling the wall  
of the socket body adjacent the free spring member  
receiving end to form an inwardly projecting  
shoulder which limits the outward movement of the  
proximal end of the resilient fingers to thereby  
10 inhibit damage to the spring by an oversize mating  
male pin.